UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,262	02/22/2005	Akira Nakano	MATS:057	5009

37013 7590 08/26/2008

ROSSI, KIMMS & McDOWELL LLP.
P.O. BOX 826
ASHBURN, VA 20146-0826

EXAMINER	
WEINSTEIN, LEONARD J	
ART UNIT	PAPER NUMBER
3746	
MAIL DATE	DELIVERY MODE
08/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,262	NAKANO ET AL.	
	Examiner	Art Unit	
	LEONARD J. WEINSTEIN	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment of June 17, 2008. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

2. The examiner acknowledges the amendments to claims 1 and 5.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitations of "an integrally formed fixed sound insulating wall…reinforcing the wall of the suction muffler body… wherein the sound-insulating wall and the wall of the suction muffler body form a blocked space." The sound insulating wall does not reinforce the wall of the suction muffler body that it forms a blocked space with. The sound insulating wall reinforces the top and bottom walls of the suction muffler body.

The specification discloses that the sound insulating wall "reinforces the strength of the outer frame of the suction muffler 14" on page 11 of the application. Thus the limitations of claim 5 which include a sound insulating wall reinforcing a wall of the

suction muffler are proper because claim 5 does not specify which wall of the muffler the sound insulating wall reinforces. The wall claimed in claim 5 could be generically any wall that forms a frame of the muffler body and the limitations can be interpreted to refer to the top and/or bottom walls of the muffler as shown in figure 2. Further the specification supports the limitations of claim 5 because the sound insulating wall does extend down and up from the top and bottom walls of the suction muffler body. However the sound insulating wall does not reinforce the wall that it forms the blocked space with.

As best understood by the examiner the limitation of "reinforcing the wall of the suction muffler body" in claim 1 will be considered as -- reinforcing a wall forming a frame of the suction muffler body --- for clarity and the office action on the merits that follows.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. 6,446,454 in view of Johnson et al. US 6,390,132. Lee teaches all the limitations as substantially claimed for a hermetic compressor including: **[claims 1 and 5]** an electric motor unit 8, a compressing unit 18 driven by the electric motor unit 8, a hermetic container 6 accommodating the electric motor unit 8 and the compressing unit 18, a compressing room, as defined within element 6 and surrounding elements 8, 10, and 20 as shown in figure 1, having an opening 22, wherein the compressing unit 18 comprises a suction valve (col. 3 ll. 47) disposed at the opening of the compressing room and a suction muffler (fig. 6) having a suction muffler body 200 forming a sound-deadening space 24b (col. 4 ll. 29-36), a first communicating path 26 communicating with the suction valve (col. 3 ll. 47) and with the sound-deadening space 24b, and a second communicating path 25 communicating with the hermetic container 18, via element 22, and with the sound-deadening space 24b, via element 24a, wherein an opening, section of element 26 facing to element 42, which is situated in the sound-deadening space 24b of the first communicating path 26, and an opening, section of element 25 facing element 42, which is situated in the sound-deadening space 24b, of the second communicating path 25 are open in a substantially identical direction (fig. 6), wherein a wall, as defined by a bottom surface of element 200 attached to element 42 via element 43 as shown in the embodiment of figure 4, of the suction muffler body 200 has an integrally formed sound-insulating wall 42 confronting both of the openings, sections of elements 25 and 26 facing element 42, situated in the sound-deadening

space 24b and **[claim 1]** reinforcing a wall, as defined by at least one of the walls around element 42 shown in figure 6 in a direction of depth i.e. walls that run parallel to the direction of the apex of element 50, of the suction muffler (fig. 6) forming a frame of the suction muffler body 200, and wherein the sound-insulating wall 42 and a wall 50 of the suction muffler body form a blocked space (fig. 4); **[claim 5]** reinforcing the wall, as defined by at least one of the walls around element 42 shown in figure 6 in a direction of depth i.e. walls that run parallel to the direction of the apex of element 50, of the suction muffler body 200,and a sound-insulating wall 42 that works as a guiding wall for guiding gas sucked from a second communicating path 25 to a first communicating path 26 smoothly (fig. 6; col. 4 ll. 55-63).

Lee fails to teach the following limitations that are taught by Johnson for a muffler body 50 including: an opening, 64 surrounding element 20, which is situated in the sound-deadening space 60 of a first communicating path element 36 of element 20, and an opening, 62 surrounding element 20, which is situated in the sound-deadening space 60, of the second communicating path, 34 of element 20, are open in a substantially identical horizontal direction (fig. 3), wherein a wall 56 of a muffler body 50 has an integrally formed sound-insulating wall 66 forming an opposite vertical face confronting both of the openings, elements 64 and 62, of the first and second communicating paths, elements 36 and 34 of element 20, situated in the sound-deadening space 60, and wherein the sound-insulating wall 66 and a wall 56 of the suction muffler body form a blocked space, space having instances of element 24, as shown in figure 3; **[claim 5]** and wherein the first communication path 36 is disposed above the second

communication path 34. Johnson teaches that vertically disposed damper body, such as the one of the embodiment in figure 3, absorbs energy generated by a flow of gas (col. 1 ll. 61-67). Johnson teaches an energy absorber that is essentially equivalent to the sound (energy absorber) of Lee however the wall and opening are orientated vertically and horizontally, respectively. This configuration is opposite from that of Lee where the sound deadening wall and openings are arranged horizontally and vertically. Lee discloses the claimed invention except for exact orientation that is taught by Johnson for an absorbing wall having inlet and outlet paths confronting the wall in configuration where the wall is orientated vertically and the openings are orientated horizontally. It would have been obvious to one having ordinary skill in the art at the time the invention was made to dispose a wall of a suction muffler vertically and make communication paths open horizontally and confront a vertical wall in order to deaden a sound generated when refrigerant gas is sucked into a muffling space. It has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Lee fails to teach an integrally formed fixed sound insulating wall forming an opposite vertical however Johnson teaches an embodiment that includes a wall 30 with one end fixed to the wall of a conduit 20 in figure 1. A modification to Lee which included fixing one edge or end face of the noise attenuating wall 42 to a wall of the suction muffler body would require routine skill in the art and Johnson shows that this arrangement had been contemplated at the time the invention was made. Fixing one edge of the wall would amount to forming a single element that was formerly made of

two separate elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to fix an edge or end face of a sound attenuating wall to a wall within a housing such as suction muffler body, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 (1893).

8. Claims 4 and 7 are rejected under 35 U.S.C 103 (a) as being unpatentable over Lee et al. 6,446,454 in view of Johnson et al. US 6,390,132, further in view of Ono et al. 6,155,067. A combination of Lee and Johnson teaches the invention as discussed including: **[claim 4]** (with respect to Lee) a suction muffler 200 formed of at least two components, elements 24b, 42, and 50 as shown in figure 6; **[claim 7]** (with respect to Johnson) and a wall 66 disposed vertically with respect to an opening face 52 of an absorbing body 50, as shown in figure 3. A combination of Lee and Johnson fails to teach the limitation that is taught by Ono for a hermetic compressor provided with a suction muffler 16 made of a synthetic resin (Ono – col. 4 ll. 39-43) for the purposes of providing a suction muffler with low thermal conductivity (Ono- col. 2 ll. 25-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a suction muffler for a hermetic compressor made from synthetic resin type in order to provide a muffler with a low thermal conductivity (Ono- col. 2 ll. 25-26).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. 6,446,454 in view of Johnson et al. US 6,390,132, further in view of Myung et al. 2002/0090305. A combination of the references as discussed teaches all the limitations

as for hermetic compressor but fails to teach the limitation that is taught by Myung for a sound-attenuating wall working as a guide wall 131 within a suction muffler body having a U-shaped cross-section when viewed from a sectional perspective. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sound attenuating wall 42 of Lee in to the shape of a U in order to minimize the resistance to flow of refrigerant within a suction chamber of a hermetic compressor (Myung - 0030).

Response to Arguments

10. Applicant's arguments filed June 17, 2008 have been fully considered but they are not persuasive. The rejections have been modified to address the amendments made to the claims.

With respect to the rejection of claims 1 and 5 under 35 U.S.C. 103(a) as being unpatentable over Lee US 6,446,454 in view of Johnson US 6,390,132 the applicant argues that a combination of the references does not teach a sound insulating wall that is fixed and reinforces a wall of the suction muffler body. In response to applicant's argument the examiner disagrees and asserts that Lee teaches a sound insulating wall that reinforces a wall (or a wall forming the frame of a suction muffler body) since element 42 would reinforce a the walls that run parallel to the direction of the apex of element 50 shown in figure 6 of Lee. Further the examiner notes that Johnson discloses an embodiment where one side of a wall is fixed to an inner wall of a fluid conduit. The other side of the wall in Johnson is not attached to another component and is supported by a damper that is analogous to the vibration maintaining means 50

disclosed in Lee. As such a combination of the two would modify Lee to fix one side of the sound attenuating wall (vibration plate 42) to and inner surface or wall of the suction muffler that the sound attenuating wall is housed within. Fixing one edge of the wall would amount to forming a single element that was formerly made of two separate elements and would have been obvious to one having ordinary skill.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD J. WEINSTEIN whose telephone number is (571)272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746

/Leonard J Weinstein/
Examiner, Art Unit 3746